

Page 1, between lines 4 and 5, insert --2. Background of the Invention:--.

Page 1, between lines 11 and 12, insert centered on the page
--OBJECT OF THE INVENTION--.

Page 1, line 12, before "invention" insert --present--.

Page 1, lines 15 and 16, after "mild areas." delete "The invention has been given the characteristics stated in the claims."

Page 1, between lines 16 and 17, insert the following text:

--SUMMARY OF THE INVENTION

The present invention teaches that this object can be achieved by leaving mild areas in the product and then by carrying out the machining in such mild areas.

In alternative embodiments of the present invention, the machining process referred to herein can also include any equivalent or related process. Examples of such processes which could be incorporated in embodiments of the present invention include, but are not limited to, embossing, inlaying, welding or weld depositing, cold working, punching, reaming and boring.

Another object can be carried out by preventing certain areas from hardening by preventing rapid cooling thereof.

In another embodiment of the present invention, a clearance can be kept between the tools and the areas for preventing rapid cooling thereof.

In yet another embodiment of the invention, the heat insulating inserts in the tools can be kept against the areas for preventing rapid cooling thereof.

The above discussed embodiments of the present invention will be described further hereinbelow with reference to the accompanying figures. When the word "invention" is used in this specification, the word "invention" includes "inventions", that is, the plural of "invention". By stating "invention", the Applicant does not in any way admit that the present application does not include more than one patentably and non-obviously distinct invention, and maintains that this application may include more than one patentably and non-obviously distinct invention. The Applicant hereby asserts that the disclosure of this application may include more than one invention, and, in the event that there is more than one invention, that these inventions may be patentable and non-obvious one with respect to the other.

Page 1, between lines 21 and 22, insert centered on the page
--DESCRIPTION OF THE PREFERRED EMBODIMENTS--.

Page 1, line 23, after "The holes" insert --12, 13, 14--.

Page 1, line 25, after "product" insert --11--.

Page 2, line 4, after "pair of tools" insert --16, 17--.

Page 2, line 4, after "and the tools" insert --16, 17--.

Page 2, line 5, after "be so" delete 'qwick' and substitute therefor --quick--.

Page 2, line 6, after "tools" insert --16, 17--.

Page 2, line 6, after "which" delete 'serves' and substitute therefor --tools serve--.

Page 2, line 7, after "fixture" insert --or support or form or brace--.

Page 2, line 9, after "analysis" insert --or makeup or composition--.

Page 2, line 11, after "suitably" insert --or preferably--.

Page 2, line 11, after "the tools" insert --16, 17--.

Page 2, line 11, after "These inserts" insert --20, 21--.

Page 2, line 12, after "tools" insert --16, 17--.

Page 2, line 13, after "otherwise." insert --In other words,

Q3 the areas of the sheet adjacent the inserts cools more slowly than the remainder of the sheet--.

Page 2, line 22, after "23, 24" delete reduces and substitute therefor --reduce--.

Page 2, line 22, after "tools" insert --16, 17--.

Page 2, line 24, after "at all or" insert --will do so--.

Page 3, line 1, after "and to" insert --then--.

Page 3, after line 9, please insert the following paragraphs:

--One feature of the invention resides broadly in a method of making a sheet steel product by heating a sized steel sheet, hot forming the steel sheet in a pair of tools and hardening the formed product by cooling it rapidly from an austenitizing temperature while it is still in the pair of tools and then machining the product, characterized in that mild areas are left in the product and the machining is carried out in such mild areas.

A further feature of the invention resides broadly in preventing said areas from hardening by preventing rapid cooling thereof.

Another feature of the invention resides broadly in keeping a clearance between the tools 16, 17 and said areas for preventing rapid cooling thereof.

Still another feature of the invention resides broadly in keeping heat insulating inserts 20, 21 in the tools against said areas for preventing rapid cooling thereof.

Another feature of the invention resides broadly in that the entire product is hardened in the tools and said areas are then tempered.

Yet another feature of the invention resides broadly in that said areas are tempered while the product is still in the tools.

Still another feature of the invention resides broadly in that said areas are tempered when the product has been removed from the tools.

Another feature of the present invention resides broadly in that said areas are tempered in connection with the machining or boring or finishing or drilling operation.

Examples of steel sheets, and methods for forming steel sheets which may be used in conjunction with embodiments of the present invention may be found in the following U.S. Patents: No. 5,382,302; No. 5,383,592; No. 5,392,843; No. 5,407,493; No. 5,421,969; No. 5,425,820; No. 5,431,753; No. 5,439,165; No. 5,462,615; No. 5,467,811; and No. 5,470,529.

Examples of induction heating devices which may be used in conjunction with embodiments of the present invention may be found in the following U.S. Patents: No. 5,378,879; No. 5,408,072; No. 5,409,553; No. 5,411,570; No. 5,455,402; No. 5,472,528; and No. 5,479,436.

Examples of methods and devices for machining metal which may be incorporated in embodiments of the present invention, may be found in the following U.S. Patents: No. 5,466,099; No. 5,385,040; No. 5,397,420; No. 5,398,572; No. 5,417,132; No. 5,439,431; No. 5,444,902; No. 5,447,485; and No. 5,474,406.

Methods of embossing or inlaying steel which may be incorporated in embodiments of the present invention may be found in the following U.S. Patents: No. 5,385,471; No. 5,391,517; No. 5,399,217; and No. 5,432,989.

Examples of metal punches and methods for using metal punches which may be incorporated in embodiments of the present invention may be found in the following U.S. Patents: No.

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5,377,415; No. 5,377,519; No. 5,379,227; No. 5,388,330; No. 5,423,199; No. 5,432,989; No. 5,435,049; No. 5,465,473 and No. 5,475,999.

Examples of low heat conductivity ceramics which may be incorporated in embodiments of the present invention may be found in the following U.S. Patents: No. 5,378,144; No. 5,378,417; No. 5,380,482; No. 5,390,843; No. 5,408,070; No. 5,411,763; No. 5,420,395; No. 5,431,020; No. 5,451,448; No. 5,468,358; No. 5,471,721; No. 5,476,684; and No. 5,477,610.

Examples of car doors, and components therein, in which products made by the method of the present invention could be incorporated, may be found in the following U.S. Patents: No. 5,277,469; No. 5,256,219; and No. 5,093,990.

U.S. Patent No. 5,600,931, and U.S. Patent Applications: Serial Number 08/121597, filed on September 14, 1993, with inventor Ernst Kero; Serial Number 08/409806, filed on March 24, 1995, having the inventor Martin Jonnson; and Serial Number 08/686269, filed on July 25, 1996, having the inventor Martin Jonnson; and the references cited therein, are hereby incorporated by reference as if set forth in their entirety herein.

The components disclosed in the various publications, disclosed or incorporated by reference herein, may be used in the embodiments of the present invention, as well as, equivalents thereof.

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D E B I T O R S

The corresponding foreign patent publication applications, namely, Swedish Patent Application No. 9,602,257-9, filed on June 7, 1996, having inventor Erland Lundström, as well as its published equivalents, and other equivalents or corresponding applications, if any, in corresponding cases in Sweden and elsewhere, and the references cited in any of the documents cited herein, are hereby incorporated by reference as if set forth in their entirety herein.

The details in the patents, patent applications and publications may be considered to be incorporable, at applicant's option, into the claims during prosecution as further limitations in the claims to patentably distinguish any amended claims from any applied prior art.